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The World Trade Center Electrical/HVAC Upgrade Program

ELECTRICAL

| No. | Date | Revision | Approved |
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| LEAHY/ FISCHER | LEAHY | A.S. |
| Designed by | Drawn by | Checked by |

Date 5-1-95 Score AS NOTED

Contract Number _____ Division Number _____

WTC 802.071 E-47



SCHEDULE - STAGE III, STEP (H) - TRANSFER LOADS TO BUS #1, 2 & EL

LOAD OUTAGES - SEE NOTE #5

* = CATEGORY "A" OR "B"

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF ONE OF THE CONTRACT DRAWINGS CONSTITUTING A PART OF CONTRACT NO. WTC-802.07 IN THE FORM IN WHICH SAID DRAWINGS EXISTED AT THE TIME THE SAID CONTRACT WAS EXECUTED BY THE PARTIES.

DATE 6/21/95 Sultan A. Aslam
SPEC WRITER
DATE 8/15/95 Peter K. Shockey
ENGINEER OF DESIGN

NOTE

1. - FOR LEGEND SEE DWG. #E-1. FOR GENERAL NOTES AND ABBREVIATIONS SEE DWG. #E-2.
2. - FOR NUMBER AND SIZE OF CONDUIT & WIRE SEE:
 - DWG. #E-41 - CONDUIT AND CABLE SCHEDULE
 - DWG. #E-98 - ATS CONNECTION DIAGRAM
3. - FOR A-3 WILL TERMINALLY SUPPLY BOTH NEWLY INSTALLED & EXIST. BANK ELEV. TRANSFER SWITCHES.
4. - CONDUIT CABLE AND BUSWAY DESCRIBED IN SCHEDULE STAGE III SHALL (a) SHALL BE INSTALLED PRIOR TO ENERGIZING BUS #1 & 2. FEEDERS THAT USE EXIST. FEEDER CONDUITS SHALL BE FEEDERS THAT SWITCHGEAR ENERGIZED.
5. - ALL ELECTRICAL OUTAGES SHALL BE PERFORMED OUTSIDE NORMAL BUILDING OPERATING HOURS. SEE SPECIFICATIONS DIVISION 1 ENTITLED "CONDITIONS AND PRECAUTIONS FOR PROTECTION OF ELECTRICAL POWER OUTAGE CATEGORIES."

* = CATEGORY "A" OR "B"

| CONDUIT DESIGNATION | - BANK ELEVATORS - |
|---------------------|--|
| R-4 | NORMAL FEEDER TO BUS #EL |
| a. | INSTALL R-4 CDT & WIRE FROM SWGR. BUS #1 TO BUS #EL VIA TRANSFER SWITCH (ENERGIZE) |
| A-3 | EMERG. FEEDER TO BUS #EL |
| a. | CUT EXIST. CDT. A-2 (2 CDT'S) & REMOVE BACK TO EXIST. SWGR. |
| b. | INSTALL CDT. A-3 FROM TRANSFER SWITCH TO ONE EXIST. A-2 CDT. & CONNECT. (CAP SECOND A-2 CDT.) |
| c. | INSTALL FDR A-3 FROM TRANSFER SWITCH VIA P.B.#1. TO EXIST. PNL. EPC-75A, USING CDT. (A-2). |
| d. | DISCONNECT EXIST. FDR'S ONE TO EACH NORTH & SOUTH SUBSTATION |
| e. | REMOVE EXIST. DOUBLE LUG & INSTALL TRIPPLE LUGS PER PHASE AT PNL. EPC-75C. CONNECT FDR'S, 3 AT PANEL AND ONE AT TRANSFER SWITCH (ENERGIZE) |
| C | CONTROL FOR BANK ELEVATORS |
| a. | DISCONNECT EXIST. AND CONNECT CONTROL WIRING DESIGNATED (2) ON DWG JE-98. |
| R-13 | BANK "D" ELEVATORS |
| a. | CUT EXIST. CDT. L-BT & REMOVE BACK TO EXIST. SWGR. |
| b. | INSTALL CDT. R-13 FROM BUS #EL TO EXIST. CDT. L-BT & CONNECT. |
| c. | INSTALL FDR R-13 FROM BUS #EL TO P.B.#2 LEAVING SLACK FOR PULL TO PNL. #EL-A7B. |
| d. | DISCONNECT & REMOVE EXIST. FDR R-13 BACK TO SWGR |
| e. | PULL FDR R-13 FROM P.B.#2 TO PNL. #EL-A7B. (ENERGIZE) |
| R-10 | BANK "A" ELEV. |
| a. | CUT EXIST. CDT. R-11 & REMOVE BACK TO EXIST. SWGR |
| b. | INSTALL CDT. R-10 FROM BUS #EL TO ONE EXIST. CDT. (R-11) & CONNECT. |
| c. | INSTALL FDR R-10 FROM BUS #EL TO P.B. #1. |
| d. | CUT EXIST. FDR. (R-10) IN P.B. #1 AND SPLICE TO LOAD SIDE. (ENERGIZE) |
| e. | REMOVE EXIST. FDR R-10 BACK TO SWGR. |

SEE NOTE #3

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| R-11 | BANK "B" ELEV. |
| a. | CUT EXIST. CDT. R-12 & REMOVE BACK TO EXIST. SWGR. |
| b. | INSTALL CDT. R-11 FROM BUS #EL TO EXIST. CDT. (R-12) & CONNECT. |
| c. | INSTALL FDR. R-11 FROM BUS #EL TO P.B. #1. |
| d. | CUT EXIST. FDR. R-11 IN P.B. #1 AND SPLICE TO LOAD SIDE. (ENERGIZE) |
| e. | REMOVE EXIST. FDR R-11 BACK TO SWGR. |
| R-12 | BANK "C" ELEV. |
| a. | CUT EXIST. CDT. R-13 & REMOVE BACK TO EXIST. SWGR. |
| b. | INSTALL CDT. R-12 FROM BUS #EL TO EXIST. CDT. (R-13) & CONNECT |
| c. | INSTALL FDR. R-12 FROM BUS #EL TO P.B. #1. |
| d. | CUT EXIST. FDR. R-12 IN P.B. #1 AND SPLICE TO LOAD SIDE. (ENERGIZE) |
| e. | REMOVE EXIST. FDR R-12 BACK TO SWGR. |
| R-4 | DISCONNECT EXIST. ELEVATOR TRANSFER SWITCH |
| a. | REMOVE FDR R-4 FROM EXIST. SWGR TO TRANSF. SW. |
| b. | REMOVE FDR A-3 FROM PNL. EPC-75C TAP TO EXIST. TRANSF. SW VIA P.B. #1 |
| C | CONTROL FOR BANK ELEVATORS |
| a. | DISCONNECT & REMOVE CONTROL WIRING FROM EXIST. TERMINAL C-222 TO EXIST. TRANSFER SWITCH. DESIGNATED (2) ON DWG JE-98 |
| R-8 | PONYA COMPUTER A/C |
| a. | CUT EXIST. CDT. X-3 BETWEEN P.B. #1 AND SUBSTATION, REMOVE BACK TO SUBSTATION |
| b. | INSTALL CDT. R-8 FROM SWGR. BUS #1 TO EXIST. (X-3) CDT. AND CONNECT. |
| c. | CUT EXIST. CDT. X-3 BETWEEN P.B. #1 & P.B. #5, REMOVE BACK TO P.B. #5. |
| d. | INSTALL CDT. R-8 FROM P.B. #3 TO EXIST. (X-3) CDT. & CONNECT |
| e. | INSTALL FDR R-8 FROM SWGR. BUS #1 TO P.B. #3 VIA P.B. #1 |
| f. | CUT EXIST. FDR R-8 IN P.B. #3 & REMOVE BACK TO EXIST. SWGR. |
| g. | SPLICE TO EXIST FDR (R-8) IN P.B. #3 (ENERGIZE) |

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| R-9 | PONYA TRANSFER SWITCH |
| a. | INSTALL R-9 CDT. & WIRE FROM SWGR. BUS #2 TO TRANSFER SWITCH. |
| b. | DISCONNECT EXIST. & CONNECT FOR R-9 AT TRANSFER SWITCH. (ENERGIZE) |
| c. | REMOVE EXIST. FDR R-9 BACK TO SWGR. |
| R-5 | MOTOR CONTROL CENTER MCC-N-75B |
| a. | INSTALL R-5 CDT & WIRE FROM SWGR. BUS #2 TO MCC-N-75B VIA P.B. #7 |
| b. | DISCONNECT EXIST. & CONNECT FDR R-5 AT MCC-N-75B (ENERGIZE) |
| c. | REMOVE EXIST. FDR BACK TO SWGR. |
| R-BT | EMERGENCY LIT. |
| a. | CUT EXIST. CDT. X-4 & REMOVE BACK TO SUBSTATION |
| b. | INSTALL CDT. R-BT FROM SWGR. BUS #2 TO CDT. (X-4) & CONNECT. |
| c. | INSTALL FDR R-BT FROM SWGR. BUS #2 TO P.B. #1. |
| d. | CUT EXIST. FDR R-BT IN P.B. #1 & REMOVE BACK TO EXIST. SWGR. |
| e. | SPLICE TO EXIST. FDR (R-BT) IN P.B. #1 (ENERGIZE) |
| R-3 | WATER SUPPLY PUMPS |
| a. | REMOVE CAP ON EXIST. CDT. R-13 PREVIOUSLY REMOVED WITH R-10. |
| b. | INSTALL CDT. R-3 FROM SWGR BUS #2 TO EXIST. (R-13) CDT & CONNECT |
| c. | INSTALL FDR R-3 FROM SWGR. BUS #2 TO P.B. #2 VIA P.B. #1 |
| d. | CUT EXIST. FDR R-3 IN P.B. #2 & REMOVE BACK TO EXIST. SWGR. |
| e. | SPLICE TO EXIST. FDR (R-3) IN P.B. #2. (ENERGIZE) |
| 1-6 | PANEL DP-75H |
| a. | INSTALL 1-6 CDT. & WIRE FROM SWGR. BUS #1 TO PNL DP-75H. |
| b. | DISCONNECT TEMPORARY & CONNECT FDR. 1-6 AT PANEL. (ENERGIZE) |
| c. | REMOVE TEMP. FDR. BACK TO SWGR. |
| d. | INSTALL REMAINDER OF CKTS IN PANEL DP-75H. |

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| R-2b | 480/277V. ELEC CLOS "N" 77th TO 92nd FLR'S FUTURE RUN 85th TO 92nd FLR'S |
| a. | INSTALL BUSWAY R-2b FROM SWGR. BUS #2 TO END CAP & "I" TO EXISTING BUSWAY R-2 |
| b. | DISCONNECT EXIST. BUSWAY R-2 AND REMOVE BACK TO EXIST. SWGR. |
| c. | INSTALL BUSWAY TRANSITION BOX ON EXISTING BUSWAY & CONNECT BUSWAY R-2b. (ENERGIZE) |
| R-2a | 480/277V. ELEC CLOS "N" FUTURE RUN 77th TO 84th FLR'S |
| a. | INSTALL BUSWAY R-2a FROM SWGR. BUS #1 TO CAP. |
| R-1 | 208/120V. TRANSF. ELEC CLOS "N" 77-92nd FLR'S SEE RISER DIAGRAM STAGE III STEP (L) & (M), DWG JE-46. |